

Product Datasheet

Product Name Recombinant Human Midkine

Cata No CB500346

Source Escherichia Coli

Synonyms NEGF-2, Neurite Growth-Promoting Factor 2, MK, Neurite outgrowth-promoting

protein, Midgestation and kidney protein, Amphiregulin-associated protein, ARAP,

Neurite outgrowth-promoting factor 2, FLJ27379.

Description

Midkine (MK) is the product of a retinoic acid responsive gene, MK, and is a member of a family of heparin binding factors. It contains 121 amino acid residues including 10 conserved cysteine residues, all of which appear to be disulphide linked. Midkine is expressed during embryogenesis, showing an expression pattern that suggests functions in neurogenesis, cell migration, secondary organogenetic induction, and mesoderm-epithelial interaction.

The widespread downregulation of MK in the adult human is reverted in a number of cancers, in which polypeptides are able to act as both transforming growth factors and promoters of angiogenesis. Midkine (MK), induces chemotaxis of human neutrophils and was found to trigger mobilization of intracellular calcium of these cells.

Midkine induces histamine release from rat peritoneal mast cells with a rapid response in a dose dependent manner.

Midkine is also a potent stimulator of collagen and glycosaminoglycan synthesis.

Midkine Human Recombinant is manufactured with N-terminal fusion of His Tag, having a molecular mass of 14.6 kDa protein and containing 121 amino acid residues of the Midkine human and 10 additional amino acid residues – His Tag (underlined).

Purity

Greater than 95.0% as determined by:

- (a) Analysis by RP-HPLC.
- (b) Analysis by SDS-PAGE.

Storage

Store lyophilized protein at -20°C. Aliquot the product after reconstitution to avoid repeated freezing/thawing cycles. Reconstituted protein can be stored at 4°C for a limited period of time; it does not show any change after two weeks at 4°C. The lyophilized protein remains stable until the expiry date when stored at -20°C.